DOCUMENT RESUME

ED 124 056 HE 007 908

AUTHOR Husband, Robert L.
TITLE Significant Others: A New Look at Attrition.
PUB DATE 10 Jan 76
NOTE 22p.; Draft of paper presented at Annual Meeting of the Association for Innovation in Higher Education (7th, Philadelphia, Pennsylvania, February 7, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Attendance; College Students; *Dropouts; Enrollment Trends; Friendship; *Higher Education; *Peer Relationship; School Holding Power; *Social Relations; Student Attitudes; *Student Motivation; Transfers; Withdrawal
IDENTIFIERS *Significant Others; Spring Arbor College

ABSTRACT

Specific factors related to attrition at Spring Arbor College were identified, along with several basic problems with attrition-retention studies found in a review of the literature. Using the "significant other" model, this project differed from the general research by taking a relational perspective to the problem of attrition. The relationship between a student's "significant others" and his staying or leaving college was examined. The construct "significant other" was defined as one who influences an individual's conceptions (about himself and his orientation toward life) through either interaction (definer) or by example (model). The findings supported three hypotheses: (1) A student will have a propensity to drop out if he has no "significant others" at the college. (2) A student will have a propensity to remain if he has at least one "significant other" affiliated with the college. (3) The Significant Other Survey is a useful instrument in the early identification of students who are most likely to drop out of Spring Arbor College. Highlights of a program designed to reduce attrition based on the Significant Other Model were used in summarizing the project. (Author/LBH)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED124056

SIGNIFICANT OTHERS: A New Look at Attrition

Robert L. Husband
Spring Arbor College

January 10, 1976

PLEASE NOTE: This is a draft document and is not to be cited or quoted without permission of the author.

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY
Robert L. Husband
TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER.

*Paper presented at Workshop Session I of the 7th Annual Meeting on "Future Solutions to Today's Problems" sponsored by the Association for Innovation in Higher Education, Saturday, February 7, 1976, Philadelphia. All rights to reproduce or quote are restricted.

HE 007 908

Attrition in higher education is not a new problem. Knowingly or unknowingly, it has been a statistical dimension of colleges and universities ever since the first student matriculated to a college campus. It has gained a position of prominence in recent years, however, because the loss of students is now critically linked to the issue of survival for most colleges and universities.

The problem of attrition whatever form it takes, is important to colleges and universities for several reasons. One, it costs the college financially. The cost comes in two forms: a) in direct dollars through loss of revenue (tuition income, housing, fees, etc.) by loss of students; and b) in its impact on the long range program by maintaining constantly low enrollments in upperclassmen courses which fix high dollars amounts for instructional costs at this level.

A second reason is that attrition breaks down the student continuity and level of maturity in the student body. This has a particular impact on the small college. As attrition takes its toll, there continues a large population of underclassmen every year as compared to a continued small population of upperclassmen. This student mix many times impedes the continuity and stability of a student body and militates against a maturing peer influence.

A final important consideration of attrition to an institution is the impact it has on the student who leaves. As mentioned before,

often students leave with feelings of disappointment, disillusionment and resentment toward the school. These feelings not only affect the student and his self-concept, but also color the influence he may have on others regarding the institution.

Programs aimed at retaining those "disappearing" students have accomplished almost everything but successful retention. As Astin (1975) indicates, dropping out of college has been intensely researched, but the research has not clearly revealed which specific factors influence students to leave, which specific factors convince students to remain enrolled, or how these factors might be controlled by those with a vested interest in persuading the student not to leave. While ultimate solutions appear at this time out of the question, it does seem likely that limited insight into the college attrition phenomenon is possible. This project is an attempt to respond to that hypothesis.

LITERATURE REVIEW

A large body of literature is available regarding the issue of attrition or dropping out of college. Cope (1968) indicates that the literature agrees in general at three major points; 1) The average rate of attrition nationally over a four year career is relatively constant. Despite some questions about reliability and interpretation of gross national figures, most authorities seem to agree that 40 per cent of the entering students never achieve a baccaluareate degree, while an additional 20 per cent do not graduate on schedule. 2) The greatest proportion of attrition occurs during the freshman year of college. 3) The attrition rate is generally higher at state supported institutions than at private institutions.

Beyond these broad guidelines, very little of the literature supports or confirms findings of previous researchers, nor are specific factors which influence attrition readily identified.

A serious flaw in the literature on attrition has been the failure by researchers to develop a theoretical or conceptual perspective to the problem. Relatively few genuine efforts have been made to raise the understanding of dropping out to a level of abstraction where theory might intersect and play a role in guiding the research. Most of the work occurs at an operational level only. For example, studies by Astin, 1964, 1972; Iffert, 1957, Knoell, 1966; McNelley, 1938; Summerskill, 1962 simply summarize patterns of persistence and withdrawal. Although they provide a valuable data base and help to determine the extent of the problem, they fail to tap the complex reasons and motivations for leaving college. At best, these approaches tend to be descriptive and often rely upon statistical analysis alone as an avenue for exploring the problem. As suggested by Cope (1968) few national studies penetrate the demographic level to explore the social and psychological influences of dropping out.

Others (Alfred, 1973; Astin 1975a, 1975b; Bayer, 1968; Blanchfield, 1971; Cope, 1972; Hannah, 1972; Ikenberry, 1961; Johnson, 1970; Nelson, 1966; Noel, 1975; Waller, 1964) have tried to identify patterns of attrition and correlate these to personality traits or characteristics of the students, environmental influences of the institution, or a combination of both. Their results have been quite varied and often conflicting.

Most recent and notable of these efforts is Astin's work Preventing Students from Dropping Out. Based on his longitudinal and multi-institu-

tional study involving approximately 101,000 students from 1968 through 1972, he concludes that there are several key variables in students persisting or withdrawing from college. He asserts that the greatest prediction factor is the student's past academic record and academic ability. Next in significance are the students' degree aspirations, religious background and preference, college finances, study habits, and the educational attainment of the parents.

Based on his findings, many of his recommendations are similar to those of previous researchers. (ie. more selective admission procedures, upgrading student's academic performance, and promoting financial assistance) These recommendations have had a tendency to be all too obvious. They prove to be of little value to institutions who, because of economic and academic reasons, cannot make substantial changes in their present circumstances.

Astin does make some other assertions however, which support the hypothesis of this project. He finds, for example, that participation in extracurricular activities, especially membership in social fraternities and sororities, is significantly related to staying in college. In addition, staying in on-campus residence, having an on-campus job, and attending an institution in which the social backgrounds of other students resembles the student's own social background are also suggested as enhancing a student's persistence. These support the theory, he suggests, that student persistence to some extent depends upon the degree of personal involvement in campus life.

Of particular interest for this study are the findings of Dr. Lee Noel, of the American College Testing Program. Noel compiled an annotated

bibliography of the doctoral dissertations on attrition-related subjects published between January 1970 and March 1975. In all, 65 dissertations studying a specific institution or group of institutions and describing characteristics of drop-outs or factors influencing the student's decision to withdraw from college, were abstracted. Noel concluded from his studies that students drop out for four complex reasons (or more likely, a combination of those reasons.)

1) Isolation (loneliness, depression)
2) Dissonance (incompatibility with environment, curriculum, people)
3) Boredom
4) Financial difficulties/pressures

The significance of this research to our project is that the primary factors Noel discovers in attrition relate heavily to interpersonal or social dissatisfaction.

A final series of studies worth considerable attention are those of Haller and Woelfel. Directing their attention toward assessing interpersonal influence on orientation variables, their research has unusual potential in the study of attrition. The researcher's efforts were to clarify and bring into a measurable domain the social psychological concept of "significant others". (Haller, Woelfel, and Fink, 1969; Haller and Woelfel, 1972; Woelfel, 1968)

Conceived by Harry Stack Sullivan in the early 1940's, the concept essentially referred to those clusters of individuals, surrounding a person, who exert tremendous influence upon that person and his orientation toward life. This concept was differentiated by Haller and Woelfel (1972) from Mead's concept of "generalized others". (1934) The important difference they suggest is that the significant other provides a "segmentalized"

view of interpersonal influence. That is, a given individual can have different significant others for different issues in his/her life.

Wanting to determine the relationship between "significant others" and an individual's orientation toward certain life variables, they designed the Wisconsin Significant Other Battery (Haller, Woelfel, and Fink, 1969; Woelfel, 1968) as an instrument to identify "significant others" and to assess their influence on student's vocational and educational aspirations. Their findings impressively support the contention that "the significant other is the most precise concept available for use in assessing interpersonal influence on orientation variables." (abstract, 1972) As a result of their research, they also suggest that the concepts and instruments used have high utility for other orientation variables.

The "significant other" approach is a particularly attractive alternative in attacking the problem of attrition for two reasons. One, it is built upon a theoretical base. As was mentioned earlier, this is contrary to the majority of the literature on attrition which has no theoretical or conceptual framework. The "significant other" approach provides an opportunity for generalization and utility at a theoretical level unavailable to descriptive studies. Secondly, it can be used as both a theory of prediction, and a theory of influence. At best, most of the present attrition research can only be used sparingly as a predictive tool. The "significant other" model on the other hand, not only has potential for predicting students who are most likely to drop out, but it also provides an immediate conceptual framework for creating preventative attrition programs.

THE PROJECT

An extensive statistical analysis of attrition/retention data was completed in the spring semester 1975 at Spring Arbor College. It was the culmination of a five-year research project on attrition. (Kline, 1974) The subsequent report provided a wealth of useful statistics and did much to establish the exact dimensions of our attrition problem. However, it failed to conclusively identify factors which could be used to predict student attrition. The President of the College requested greater efforts be made in this area.

Using the "significant other" model provided by Haller and Woelfel (1972) a new project was begun. The purpose of this project was to examine the correlation or relationship between a student's "significant others" (SO) and his staying or leaving college. Our hypotheses were:

1) A student will have a propensity to drop out of Spring Arbor College if he has no (SO) affiliated with the college.

2) A student will have a propensity to remain at Spring Arbor College if he has at least one (SO) affiliated with the college.

3) The Significant Other Survey is a useful instrument in identifying students who are most likely to leave Spring Arbor College.

For the purposes of this project the theoretical construct "significant others" was defined as one who influences an individual's conceptions (about himself and his orientation toward life) through either interaction (definer) with the individual or by example (Haller and Woelfel, 1972). At the operational level the concept of "significant other" was determined by the student as the individuals he/she identified in response to the question "Who have you talked most often about your attending Spring Arbor College?"

INSTRUMENT: The instrument developed for this study was a modified form of the Wisconsin Significant Other Battery used by Haller and Woelfel (1972). (Appendix A) The intent was to rely upon the validity and reliability established for their instrument. Although a complete instrument was administered which would provide information regarding both types of "significant others" (definers and models) we chose to work only with those responses which provided information regarding (SO) as definers. Thus as the term "significant others" (SO) was discussed in this project, it referred only to those persons who were definers (Haller and Woelfel, 1972) in a student's life. The purpose of this instrument was to identify the (SO) for entering freshman in respect to their selection of a college. The questions of greatest concern on the survey were: "Who have you talked with most often about your attending Spring Arbor College?" and "How often have you talked with the above people?" These questions identified specifically (SO) (definers) for the student and the frequency of their influence. Spaces were provided for six responses to each question, with instructions that more could be added if appropriate.

SAMPLE: The 1974 freshman class was selected as our population. The primary reason for selecting this population was that the freshmen year is when the highest rate of attrition occurs at Spring Arbor College (SAC), 34.6 per cent. (Kline, 1974). To work the project through to an effective conclusion with this particular sample would be to tackle the problem at its most intense state. It also would maximize the benefits if the project was successful. Out of a population of 279 freshmen, 181 students participated in the project. Efforts were made to see if the 181 participants, through a self-selective process, had potentially biased the sample and thus

not reflected the total population. Demographic characteristics considered significant in national attrition studies were reviewed for both those who participated and those who did not. In examining such areas as sex, race, religious background, marital status, regional background, and academic achievement, no significant difference was established between participants and non-participants. Therefore, it was concluded that the sample reflected the general population of the freshmen class.

PROCEDURE: All new freshman students were requested to be at a required evening assembly the second week in October. At the assembly, participants were asked to respond to the Significant Other Battery. Instructions were provided as a part of the battery and also given verbally. Students turned in their completed surveys upon leaving the auditorium. Collected were 162 surveys. In an attempt to gain a response from a larger percentage of the class, surveys were mailed to all freshman not at the assembly. An additional 19 surveys were received in this manner.

After the surveys were collected, responses to four specific questions were analyzed and classified. Working with the specific question, "Who have you talked with most often about your attending Spring Arbor College?"; those students who identified as a (SO) at least one member in the college community (other students, faculty, or staff) were differentiated from those who identified (SO) not affiliated with the college. A second item was the establishment of a priority ranking of influence or significance for the (SO) identified by the question, "How often have you talked with the above people?" Thirdly, responses to the question, "Where did your parents want you to attend college?" were grouped in two categories--those

identifying (SAC) as parent's choice and those identifying other than (SAC). A final response tabulated was in regards to the person they thought felt the same way they did about Spring Arbor College.

RESULTS: Of the 181 students participating in the project, 97 or them (54%) indicated they had at least one (SO) that affiliated with the college (student, faculty, staff). Eighty-four of them (46%) identified as (SO) individuals not affiliated with the college. The average number of significant others for each student was 3.7. In determining the priority ranking of (SO), the three individuals the student consulted most often were selected in order of most frequent consultation. When frequency of consultation was the same for two or more (SO), the (SO) identified first by the student was given priority.

Forty-four students who had taken the Significant Other Survey left Spring Arbor College during or at the end of their freshmen year. Thirty-three or (75%) of these students indicated on their survey that they had no (SO) on campus. Of those freshman who persisted into their sophomore year, surveys had been completed by 137 students. Eighty-six or (63%) of these students indicated on their survey that they had at least one (SO) affiliated with the college.

DISCUSSION & CONCLUSION: Recognizing the severe limitations of this project for generalization, we found the results of our study significant for Spring Arbor College. Several conclusions can be drawn about the sample population. A high correlation did indeed exist between a freshman student's (SO) and his propensity to leave Spring Arbor College. This was demonstrated by the fact that 75 per cent of the sampled students who failed to persist for

more than one year, indicated on the survey that their (SO) were persons not affiliated with the college. This figure becomes even more significant when further investigation is conducted on those who dropped out. Two of the eleven students indicating they had (SO) on campus who left Spring Arbor, had their number one (SO) leave SAC either prior to their leaving or at the same time. A third student who related on his survey that his parents were in strong disagreement with his choice of Spring Arbor as a college, did not return as a result of parental insistence. This information was received in writing at the beginning of the 1975 fall semester. Seven out of the eleven students had only one (SO) on campus and for three of these, their only (SO) on campus was ranked third in influence.

A second conclusion that can be drawn is that those freshman students who identified as (SO) persons affiliated with the college had a propensity to remain at the college. The statistical support for this seems slightly inconclusive when only 64% of the students who returned indicated in the survey that they had (SO) on campus. However, this percentage was deceptively low because it included three types of students confounding the percentage, who indicated on their survey they did not have (SO) on campus. One was the student who had developed a (SO) after the instrument was administered. This student actually should be included in those who had (SO) on campus as a result of developing (SO) during the freshmen year. A second type of student is one who still does not have a (SO) on campus, will not develop one, and will be reflected in future attrition statistics in the sophomore, junior or senior years. A third type of student who does not have a (SO) on campus, but remains, is the student who is being supported

and encouraged to stay on at the college from his (SO) external to the college.

A final conclusion is that the Significant Other Survey was a useful instrument for identifying those freshman in the sample population who were most likely to leave Spring Arbor College. In showing that every 3 out of 4 students in the sample who left the college had indicated in October they had no (SO) on campus, the survey identified with 75 per cent accuracy those students most likely to leave the college. Along with the accuracy of identification, the instrument is useful in that it can identify students who are most likely to leave SAC early in the semester (within one month of the freshman's matriculation to campus). This gives the institution a distinct advantage in the longer opportunity provided to work specifically with those freshmen who are most likely to drop out. A final point is that the identification of (SO) proved to be a far more significant factor relating to attrition than any other demographic factors that could be identified.

We are not suggesting that a cause and effect relationship has been established between significant others and attrition. However, we would assert that the project has demonstrated a significant relationship between the two variables of (SO) and attrition for the sample population used.

Two of the studies cited earlier (Astin 1975b, Noel 1975) appear to lend support to our contention that (SO) are a considerable factor in attrition. Astin's findings on personal involvement in campus life, membership in fraternities and sororities, participation in extracurricular activities lend themselves to the Significant Other Model. Participation, involvement,

and membership find their greatest value in relating people to one another in a significant way; thus, the creation of significant others.

Noel's (1975) conclusions that isolation, dissonance and boredom were critical factors on attrition also certainly seem to relate to the concept of "significant others". The students ability to establish significant other relationships on campus would very much affect his attitudes of isolation, boredom, and dissonance. If he were unable to develop these relationships, logic dictates that his sense of isolation or estrangement and dissonance would increase. Feelings of both academic and social boredom would also be affected by a lack of close, significant relationships to others.

Finally, we are quick to agree that there may indeed be other variables that affect attrition. Yet, none have seemed as powerful as the (SO) for freshman students at SAC. This focus on the impact of relationships upon attrition appears to be the first real thrust in examining or assessing interpersonal influence upon the orientation variable of remaining in college.

APPLICATION

The purpose of the project was not only to identify significant factors which relate to attrition but then to also institute a program geared to reducing attrition. Convinced that the concept of "significant other" is a very powerful and workable tool in dealing with the problem of attrition at Spring Arbor College, a program was formulated around this conceptual model. Just a few dimensions of the program will be highlighted in this application; specifically those which relate to changes in the on-campus and admissions activities.

ON-CAMPUS ACTIVITIES

All on-campus activities were reviewed in respect to their ability to facilitate or maintain significant other relationships for the student. In general, instructional staff were reminded and encouraged to establish good personal relationships with their students where possible. It was suggested that they select a few students in their field to whom they would give additional time and attention outside the classroom.

Students identified in the survey who did not have "significant others" affiliated with the college were given extra exposure to selected people on the campus such as student resident assistants and academic advisors.

The Freshman orientation and academic advising program: was restructured. Orientation previously could be adequately described as a "show and tell" operation in the fall. In light of Hannah's studies (19) which indicate many students are having thoughts of withdrawing before even entering college, the bulk of orientation was moved to the summer. Combining this with the knowledge that for 60% of the students, parents are "significant others" in their selection of a college, we included parents in a summer orientation weekend. The emphasis of the weekend was threefold: one was to plan the student's schedule for the fall and thus tie him into the program early. A second was to run an initial (SO) Battery on the freshman class to receive an early perception of the potential problems. The third, and most important emphasis, was placed upon the development of significant relationships between all who were at the weekend. Both students and parents were placed in small groups (parents separate from students) for the majority of the weekend with activities centered around getting to know another.

In this context, positive information regarding the college was disseminated. The fall orientation then was a carry-over of this activity for the students. Academic advising, information dissemination, and registration were conducted in these established groups. The obvious intent was to provide an initial primary or reference group experience for the student.

Freshman Parents Day: Occurring the first Saturday of November and the last Saturday in the spring, freshman parents were invited back to the college at the college's expense. Recognizing again the impact of the parents as a generalized "significant other", an effort was made to develop a low profile public relations program that, if effective, would be using the parents as support mechanisms external to the campus to encourage their students to remain at the college. The key to the day was the grouping of the parents. Utilizing the data collected on the (SO) survey, parents would be grouped according to whether or not they had encouraged their children to attend or not attend Spring Arbor College. Where possible, each group would be composed of a majority of parents who had encouraged their students to attend Spring Arbor. This grouping suggests that the discussion and orientation of the group would be proactive toward Spring Arbor and that the principle of public advocasy would have a reinforcing affect on those parents supporting the college.

Extra Curricular Activities: The social activities program was redesigned to be asconducive as possible to the development of significant others.

1. Clubs and organizations were not predesigned but created around the interests of small groups of students. Broader involvement in was designed in the athletic program, both intramurally and intercollegiately.

The intramural program was established around living units to reinforce the interaction and relationships already occurring at the residence level. Interestingly enough, an enlargement of the women's athletic programs was supported on the basis of this model.

Living units were changed, where possible, with the acquistion of houses on the parimeter of campus. The attempt here was to institute smaller living groups with some sense of self governance in hopes of increasing intimacy of interaction. Students chose to live in the houses. This arrangement had the potential of backfiring, if conflicts developed which were not resolved. Therefore, in conjunction with this program, we intergrated a conflict management series into our new student orientation sessions and residence staff training sessions.

A specialized activity recognized as important at Spring Arbor College was music. Although the vast majority of students were not music majors, better than 60% of the freshman class indicated high interest and aptitude in music on their ACT Profiles. Combining the concepts of public advocasy and significant others, suggestions were made to expand and enlarge the field service program (musical groups going out from the college.)

ADMISSIONS

Non-traditional suggestions were offered to admissions as the role they played in attrition/retention. Working again mainly with the theories of public advocasy and significant others, a five-point proposal was recommended:

1) Utilize freshmen in recruitment efforts. After selecting key freshman (i.e. those whom were identified more than twice in response to the question on the (SO) survey, "Who feels most like you regarding Spring Arbor College?") send three member teams for recruiting, two with (SO) on campus, grouped with one whose (SO) were not on campus.

2) Widely incorporate block recruiting. That is, recruit from places from which several students are already attending SAC or are planning on attending. This is preferred in recruiting in new territory as the former situation may cause students to be bringing their (SO) with them.

3) 3) Establish recruitment activities in the homes of present freshmen, whose parents advocated Spring Arbor College. Hopefully have them co-host the activity with freshmen parents who did not advocate the college to their student.

4) Place a (SO) question on the Admissions application for the admissions office to follow up. This follow-up would be in two dimensions:

a) A thank you letter to the (SO) for their imput into the potential student's life, plus a 3 x 5 card saying: "_____ says you are a significant person in his life, how can we best help him accomplish his goals?"

b) Send occasionally the same (SO) information emphasizing the positive attributes of the college.

Although further activities built around the "Significant Other Model" are continuing to be developed, the above project has already proved fruitful in several ways. One, it has raised the consciousness of the entire college community regarding the impact of interpersonal relationships upon students staying or leaving SAC. Secondly, even though the project has only been partially implemented, our attrition rate in the past year has declined nearly 6% Obviously, other factors may have influenced this reduction, such as the national economic conditions, etc.; however, this project is the only new variable of sizable dimensions that has been introduced into Spring Arbor College life.

SELECTED BIBLIOGRAPHY

Alfred, Richard L. "Student Attrition: Strategies for Action." Office of Education Planning and Research, Metropolitian Junion College District, Kansas City, Missouri, 1973.

Astin, A. W. "Personal and Environmental Factors Associated with College Drop Outs Among High Aptitude Students." Journal of Educational Psychology, 1964, 55, 276-287.

Astin, A. W. "College Drop-Outs: A National Profile." ACE Research Reports. Washington, D.C.: American Council on Education, 1972.

Astin, A. W. "Drop-Outs, Stop-Outs, and Persisters: A National Profile." Los Angeles: Labortory on Research for Higher Education, University of California, 1975a.

Astin, A.W. Preventing Students From Dropping Out. San Francisco: Jossey-Bass, 1975b.

Attrition Study. Covenant College, April 1973.

Bayer, A. E. "The College Drop-Out: Factors Affecting Senior College Completion." Sociology of Education, 1968, 41, 305-316.

Blai, B. Student Retention and Withdrawals at Harcum, Harcum Junior College, Bryn Mawr, Pennsylvania, 1970.

Blanchfield, W. C. "College Drop-Outs Identification: A Case Study." The Journal of Experimental Education, 1971, 40, 1-4.

Carnegie Commission on Higher Education. More Time, Less Options. New York: McGraw-Hill, 1972.

Cohen, A. M., and Brawer, Florence. Student Characteristics, Personality, and Drop-Out Propensity. Washington, D.C.: American Association of Junior Colleges. 1970.

Cope, R. G. "Limitations of Attrition Rates and Causes Given for Dropping Out of College." Journal of College Student Personnel, 1968, 9, 386-392.

Cope, R. G. "Are Students More Likely to Drop-Out of Large Colleges?" College Student Journal, 1972, 6, 92-97.

Couch, C., and Murray, J. S., "Significant Others and Evaluation." Sociometry, 1964, 27, 502-509.

Escher, Sister Firmin. Attrition Study of Freshmen, 1971-72. College of St. Benedict, July 5, 1973.

Etters, E. M. Attrition at Parsons College, 1950-1965, Office of Institutional Research, Parsons College, Fairfield, Iowa, 1967.

Fenstemacher, W. "College Drop-Outs, Theories, and Research Findings." Tomorrow's Imperative Today, Robert G. Cope, ed. The Association for Institutional Research, 1973.

Haller, A. O. Woelfel, J., and Fink, E. "Wisconsin Significant Other Battery: Instruction, Validation, and Relability Tests of Questionnaire Instruments to Identify 'Significant Others' and Measure Their Educational and Occupational Expectations for High School Use." Madison, University of Wisconsin, Final Report, U.S. Office of Education. Project #5-1170, 1969.

Haller, A. E. and Woelfel, J. "Significant Others and Their Expectations: Concepts and Instruments to Measure Interpersonal Influence on Status Aspirations." Rural Sociology. 1972, 37:4, 591-622.

Hannah, W. "Personality Differentials between Lower Division Drop-Outs and Stay-Ins." T. , Journal of College Student Personnel, 1971, 12, 18-19.

Hannah, W. "Withdrawal From College." Project on Student Development-CASC, Spring Arbor College, 1972.

Iffert, R. E. "Retention and Withdrawal of College Students." Washington, D.C.; U.S. Government Printing Office, 1957.

Iffert, R. E. and Clarke, B. S. College Applicants, Entrants, Drop-Outs. Bulletin 1965, No. 29. Washington, D.C.: Government Printing Office, 1965.

Ikenberry, S. O. "Factors in College Persistence." Journal of Counseling Psychology, 1961, 8, 322-329.

Johnson, D. E. "Personality Characteristics in Relation to College Persistence." Journal of Counseling Psychology, 1970, 17, 162-167.

Kline, G., Attrition Study. Institutional Research, Spring Arbor College, 1974.

Knoell, D. M. "Institutional Research on Retention and Withdrawal." In H.T. Sprague (ed.), Research on College Students. Berkley, California: Western Interstate Commission for Higher Education and Center for Higher Education, December, 1960, 41-65.

Knoell, D. M. "A Critical Review of Research on the College Drop-Out." In L. Pervin at. al.,(ed.) College Drop-Out and the Utilization of Talent. Princeton: Princeton University Press, 1966.

Marsh, L. M. "College Drop-Outs--A Review." Personnel and Guidance Journal. 1966, 44, 475-481.

Mead, G. H. Mind, Self, and Society. Chicago: University of Chicago Press, 1934.

McNelley, J. H. "College Student Mortality." U.S. Office of Education, Bulletin 1937, No. 11. Washington, D.C.: U.S. Printing Office, 1938.

Nelson, A. G. "College Characteristics Associated with Freshmen Attrition." The Personnel and Guidance Journal, 1966, 44, 1046-1050.

Noel, L. Attrition/Retention Studies: Annotated Bibliographies. ACT Program: Iowa City, 1975.

Summerskill, J. "Drop-Outs from College". In N. Sanford, (ed.) The American College. New York: Wiley, 1962.

Waller, C. "Research Related to College Persistence: A Review of Some Research Concerning College Student Persistence and Withdrawal." College and University, 1964, 39, 281-294.

Woelfel, J. "Significant Other Roles, and the Educational and Occupational Attainment Process: Results of Preliminary Administration of the Wisconsin Significant Other Battery." Madison: University of Wisconsin. Unpublished PhD Dissertation, 1968.